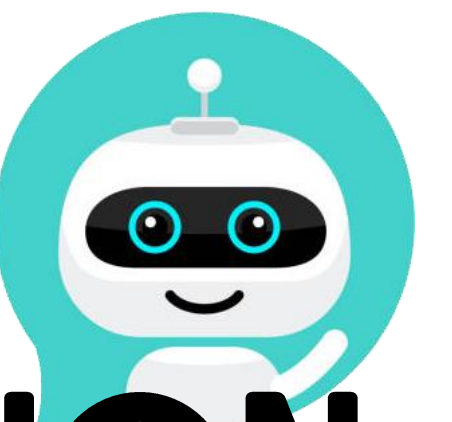




Singapore Healthcare Management 2021

# THE USE OF ROBOTIC PROCESS AUTOMATION TO TRANSCRIBE PDF TELECOMMUNICATION BILLS INTO EXCEL



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Sample telco bill ▼

Account No. 11001010 Date 09 Jun 2021  
Name SINGAPORE GENERAL HOSPITAL PTE LTD

TELEPHONE NO.	Number	Cost Centre	Department	Amount (SGD)
6611 1111	71101 - ENT			3.77
G Local Call Charge 01 May 2021 to 03 Jun 2021 472 Unit(s)				3.77
Total for 6611 1111				3.77
6611 1112	72202 - OTO	IO	GZMOHXVU001	0.02
G Local Call Charge 20 May 2021 to 27 May 2021 3 Unit(s)				0.02
Total for 6611 1112				0.02
6611 1113	73303 - REN			22.82
G Local Call Charge 06 May 2021 to 03 Jun 2021 2852 Unit(s)				22.82
STD Call Date Time Country Called No. Duration Rate Amount 20 May 8:58am Malaysia 0374111113 1m 00s S 0.14 Subtotal for STD 020 Call 0.14 Total for STD Call 0.14				0.14
Total for 6611 1113				22.96
6611 1115	75505 - PHAR			13.15 -
G Disconnect of Telephone Line @ 12% 01 May 2021 to 03 Jun 2021				13.15 -
Total for 6611 1115				13.15 -

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## 1. INTRODUCTION

Every month, SGH receives 18 to 20 telecommunication bills in PDF format (left) from our service providers.

A staff identifies specific information in each line item in each bill, types in these information into a corresponding row in MS Excel (below), and uploads the completed Excel files onto a Finance system for billing. This process typically takes 4 hours and is tedious, repetitive and prone to error.

Sample output Excel ▼

	A	B	C	D	E	F	G	H
1	GL Account	Net Amount	Credit/ Debit	Cost Centre	IO	Tax Code	Number	Department
2	55000010	3.77	D	71101		I7	66111111	ENT
3	55000010	0.02	D	72202	GZMOHXVU001	I7	66111112	OTO
4	55000010	22.82	D	73303		I7	66111113	REN
5	55000010	0.14	D	73303		I0	66111113	REN
6	55000010	13.15	C	75505		I7	66111115	PHAR

The objective of this project is to automate this process using Robotic Process Automation (RPA), so as to free-up humans to perform higher-value work, and to improve accuracy and productivity.

## 2. METHODOLOGY

### Process Mapping

A team comprising of the process owner from Call Centre and an RPA developer from the AI & Analytics team was formed.

The team mapped out the workflow in detail, and adjusted it whenever necessary.

### Script Development

Using UiPath software, the RPA developer programmed an RPA bot using 3 sets of bills from Aug to Oct 2020 as samples.

The RPA bot was then tested if it was working correctly using bills from Jan to Dec 2020.

### Implementation

The automation went live in March 2021, allowing the process owner to shorten the turnaround time from half a day to one minute.

The RPA bot also performed the task with 100% accuracy.

### User Acceptance Test (UAT)

Next, the RPA developer arranged for the process owner to do an UAT, where the RPA bot was tested whether it could carry out the required tasks and respond adequately to all real-life situations.

## 3. PROCESS FLOW

BEFORE

Staff logs in to the telco's portal.

AFTER

Staff exports all the bills for the previous month.

4 hrs

Staff identifies specific information from each line item in each bill and fills up the Excel templates accordingly.

Staff executes the automation.

The RPA bot 'looks through' each line item and fills up the Excel template accordingly.

1 min  
(99.6% time savings & 100% accuracy!)

Staff uploads the Excel files onto a finance system for billing.

## 4. CONCLUSION

RPA can augment our workforce by taking over repetitive and straightforward tasks. RPA can also complete tasks with higher accuracy and within a much shorter period of time.

With this successful use case, SGH will continue to roll-out the use of RPA across the entire institution.

